

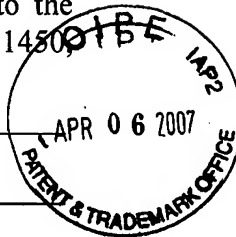
I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

on April 4, 2007

Glenn P. Ladwig  
Glenn P. Ladwig, Patent Attorney

INFORMATION DISCLOSURE  
STATEMENT

Examining Group 1632  
Patent Application  
Docket No. USF-T192XC1  
Serial No. 10/544,145



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Examiner : (Not yet assigned)  
Art Unit : 1632  
Applicant : Shyam S. Mohapatra  
Serial No. : 10/544,145  
Filed : August 2, 2005  
For : Chitosan-Microparticles for IFN Gene Delivery

MS AMENDMENT  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT  
UNDER 37 C.F.R. §§1.97 AND 1.98

Sir:

In accordance with 37 C.F.R. §1.56, the references listed on the attached form PTO/SB/08 are being brought to the attention of the examiner for consideration in connection with the examination of the above-identified patent application. A copy of each cited reference is enclosed. However, the applicant has not submitted copies of the U.S. patents or published U.S. applications cited on attached Form PTO/SB/08 pursuant to 37 C.F.R. §1.98(a)(2)(ii).

The applicant respectfully asserts that the substantive provisions of 37 C.F.R. §§1.97 and 1.98 are met by the foregoing statement.

Respectfully submitted,

Glenn P. Ladwig

Glenn P. Ladwig  
Patent Attorney  
Registration No. 46,853  
Phone No.: 352-375-8100  
Fax No.: 352-372-5800  
Address: P.O. Box 142950  
Gainesville, FL 32614-2950

GPL/mv

Attachments: Form PTO/SB/08 (7 pages); copies of some references cited therein



PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<b>Substitute for form 1449A/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	10/544,145
				Filing Date	August 2, 2005
				First Named Inventor	Shyam S. Mohapatra
				Art Unit	1632
				Examiner Name	
Sheet	1	of	7	Attorney Docket Number	USF-T192XC1

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number - Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	U1	US-6,489,306 B2	12-03-2002	Mohapatra et al.	All
	U2	US-5,527,538	06-18-1996	Baldeschwieler	All
	U3	US-5,441,745	08-15-1995	Presant et al.	All
	U4	US-5,435,989	07-25-1995	Presant et al.	All
	U5	US-5,264,618	11-23-1993	Felgner et al.	All
	U6	US-5,019,369	05-28-1991	Presant et al.	All
	U7	US-4,897,355	01-30-1990	Eppstein et al.	All
	U8	US-2006/0239971 A1	10-26-2006	Mohapatra et al.	
	U9	US-2005/0159385 A1	07-21-2005	Mohapatra	All

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
	F1	WO 03/028759 A1	04-10-2003	Univ of South Florida	All	
	F2	WO 02/34287 A2	05-02-2002	Pharmexa A/S	All	
	F3	WO 99/36089 A1	07-22-1999	Johns Hopkins Univ	All	
	F4	WO 97/45442 A1	12-04-1997	Imperial College Sci Tech Med.	All	
	F5	WO 97/20576 A1	06-12-1997	Danbiosyst UK Lmted	All	
	F6	WO 95/02698 A1	01-26-1995	Life Tech., Inc.	All	
	F7	WO 91/15501 A1	10-17-1991	Yale University	All	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kind Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard T.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(use as many sheets as necessary)</i>				<b>Complete if Known</b>	
				Application Number	10/544,145
				Filing Date	August 2, 2005
				First Named Inventor	Shyam S. Mohapatra
				Art Unit	1632
				Examiner Name	
Sheet	2	of	7	Attorney Docket Number	USF-T192XC1

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number - Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	U10	US-2005/0266093 A1	12-01-2005	Mohapatra	All
	U11	US-2005/0158327 A1	07-21-2005	Mohapatra et al.	All
	U12	US-2004/0175384 A1	09-09-2004	Mohapatra et al.	All
	U13	US-2004/0009152 A1	01-15-2004	Mohapatra et al.	All
	U14	US-2003/0198624 A1	10-23-2003	Mohapatra et al.	All
	U15	US-2003/0068333 A1	04-10-2003	Mohapatra et al.	All
	U16	US-10/655,873	09-05-2003	Mohapatra et al. (patent application)	All
	U				

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code <sup>3</sup>	Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)			
	F					
	F					
	F					
	F					
	F					
	F					

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kind Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard T.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	10/544,145
				Filing Date	August 2, 2005
				First Named Inventor	Shyam S. Mohapatra
				Group Art Unit	1632
				Examiner Name	
Sheet	3	of	7	Attorney Docket Number	USF-T192XC1

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article, (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	R1	Accession No: NM_000639, NCBI database, "Homo sapiens Fas ligand (TNF superfamily, member 6) (FASLG), mRNA" August 1, 2005.	
	R2	BEHERA, A.K. <i>et al.</i> "2'-5' oligoadenylate synthetase plays a critical role in interferon- $\gamma$ inhibition of respiratory syncytial virus infection of human epithelial cells" <i>J Biol Chem</i> , 2002, 277:25601-25608.	
	R3	BEHERA, A.K. <i>et al.</i> "Adenovirus-mediated interferon $\gamma$ gene therapy for allergic asthma: involvement of interleukin 12 and STAT4 signaling" <i>Human Gene Therapy</i> , 2002, 1697-1709.	
	R4	BIVAS-BENITA, M. <i>et al.</i> "Pulmonary delivery of chitosan-DNA nanoparticles enhances the immunogenicity of a DNA vaccine encoding HLA-A*0201-restricted T-cell epitopes of <i>Mycobacterium tuberculosis</i> " <i>Vaccine</i> , 2004, 22:1609-1615.	
	R5	BORASCHI, D. <i>et al.</i> "Interferons inhibit LTC <sub>4</sub> production in murine macrophages" <i>J Immunol</i> , 1987, 138:4341-4346.	
	R6	BROOKING, J. <i>et al.</i> "Transport of nanoparticles across the rat nasal mucosa" <i>J Drug Target</i> , 2001, 9:267-279.	
	R7	DAINES, M.O. and HERSHEY, G.K. "A novel mechanism by which interferon- $\gamma$ can regulate interleukin (IL)-13 responses" <i>J Biol Chem</i> , 2002, 277(12):10387-10393.	
	R8	DE SMEDT, S.C. <i>et al.</i> "Cationic polymer based gene delivery systems" <i>Pharm. Res.</i> , 2000, 17:113-126.	
	R9	DOW, S.W. <i>et al.</i> "Systemic and local interferon $\gamma$ gene delivery to the lungs for treatment of allergen-induced airway hyperresponsiveness in mice" <i>Hum Gene Ther</i> , 1999, 10:1905-1914.	
	R10	ERBACHER, P. <i>et al.</i> "Chitosan-based vector/DNA complexes for gene delivery: biophysical characteristics and transfection ability" <i>Pharm Res</i> , 1998, 15:1332-1339.	
	R11	FILIPOVIĆ-GRČIĆ, J. <i>et al.</i> "Mucoadhesive chitosan-coated liposomes: characteristics and stability" <i>J Microencapsul</i> , 2001, 18:3-12.	
	R12	FLAISHON, L. <i>et al.</i> "Cutting edge: Anti-inflammatory properties of low levels of IFN- $\gamma$ " <i>J Immunol</i> , 2002, 168:3707-3711.	
	R13	FORD, J.G. <i>et al.</i> "IL-13 and IFN- $\gamma$ : interactions in lung inflammation" <i>J Immunol</i> , 2001, 167:1769-1777.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (use as many sheets as necessary)			<b>Complete if Known</b>		
			Application Number	10/544,145	
			Filing Date	August 2, 2005	
			First Named Inventor	Shyam S. Mohapatra	
			Group Art Unit	1632	
			Examiner Name		
			Attorney Docket Number	USF-T192XC1	
Sheet	4	of	7		

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article, (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	R14	GARNETT, M.C. "Gene-delivery systems using cationic polymers" <i>Crit. Rev. Ther. Drug Carrier Syst.</i> , 1999, 16:147-207.	
	R15	GURUJEYALAKSHMI, G. and GIRI, S.N. "Molecular mechanisms of antifibrotic effect of interferon gamma in bleomycin-mouse model of lung fibrosis: Downregulation of TGF- $\beta$ and procollagen I and III gene expression" <i>Exp Lung Res</i> , 1995, 21:791-808.	
	R16	HAMAJIMA, K. <i>et al.</i> "Chitin micro-particles (CMP): A useful adjuvant for inducing viral specific immunity when delivered intranasally with an HIV-DNA vaccine" <i>Viral Immunology</i> , 2003, 16:541-547.	
	R17	HAYES, M.P. <i>et al.</i> "Regulation of interleukin-12 expression in human monocytes: Selective priming by interferon- $\gamma$ of lipopolysaccharide-inducible p35 and p40 genes" <i>Blood</i> , 1995, 86:646-650.	
	R18	HELLERMAN, G. <i>et al.</i> "Chitosan IFN-gamma-gene nanosphere (CIN) therapy for allergic asthma: Modulation of specific T-cell and dendritic cell responses" <i>J. Allergy Clin Immunol.</i> , 2003, 111:S265, abstract no. 791.	
	R19	HELLERMANN, G.R. <i>et al.</i> "Mechanism of cigarette smoke condensate-induced acute inflammatory response in human bronchial epithelial cells" <i>Resp. Res.</i> , 2002, 3:22-30.	
	R20	KABANOV, A.V. "Taking polycation gene delivery systems from <i>in vitro</i> to <i>in vivo</i> " <i>Pharm.Sci.Tech.Today</i> , 1999, 2:365-372.	
	R21	KIM, Y.H. <i>et al.</i> "Structural characteristics of size-controlled self-aggregates of deoxycholic acid-modified chitosan and their application as a DNA delivery carrier" <i>Bioconj Chem</i> , 2001, 12:932-938.	
	R22	KOLTOVER, I. <i>et al.</i> "An inverted hexagonal phase of cationic liposome-DNA complexes related to DNA release and delivery" <i>Science</i> , 1998, 281:78-81.	
	R23	KONG, X. <i>et al.</i> "Chitosan IFN-gamma-gene nanoparticle (CIN) therapy for allergic asthma in mice involves STAT4 signaling pathway" <i>J. Allergy Clin Immunol.</i> , 2003, 111:S354, abstract no. 1144.	
	R24	KOTZÉ, A.F. <i>et al.</i> "Enhancement of paracellular drug transport with highly quaternized N-trimethyl chitosan chloride in neutral environments: In vitro evaluation in intestinal epithelial cells (Caco-2)" <i>J Pharm Sci</i> , 1999, 88:253-257.	
	R25	KRASNOWSKA, M. <i>et al.</i> "Effect of recombinant IFN- $\gamma$ on IgE-dependent leukotriene generation by peripheral blood leukocytes in patients with pollinosis and asthma" <i>Arch Immunol Ther Exp (Warsz)</i> , 2000, 48:287-292.	
	R26	KUMAR, M. <i>et al.</i> "Role of mucosal IFN- $\gamma$ gene transfer on allergic sensitization and RSV infection" <i>J. Allergy Clin Immunol.</i> , 2002, 109:S4, abstract no. 78.	

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			<b>Complete if Known</b>		
			Application Number	10/544,145	
			Filing Date	August 2, 2005	
			First Named Inventor	Shyam S. Mohapatra	
			Group Art Unit	1632	
			Examiner Name		
Sheet	5	of	7	Attorney Docket Number	USF-T192XC1

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article, (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	R27	KUMAR, M. <i>et al.</i> "Intranasal gene transfer by chitosan-DNA nanospheres protects BALB/c mice against acute respiratory syncytial virus infection" <i>Human Gene Therapy</i> , 2002, 13:1415-1425.	
	R28	KUMAR, M. <i>et al.</i> "IFN- $\gamma$ and IL-12 plasmid DNAs as vaccine adjuvant in a murine model of grass allergy" <i>J Allergy Clin Immunol</i> , 2001, 108:402-408.	
	R29	KUMAR, M. <i>et al.</i> "Intranasal IFN- $\gamma$ gene transfer protects BALB/c mice against respiratory syncytial virus infection" <i>Vaccine</i> , 1999, 18:558-567.	
	R30	LI, X-M. <i>et al.</i> "Mucosal IFN- $\gamma$ gene transfer inhibits pulmonary allergic responses in mice" <i>J Immunol</i> , 1996, 157:3216-3219.	
	R31	MATSUSE, H. <i>et al.</i> "Recurrent respiratory syncytial virus infections in allergen-sensitized mice lead to persistent airway inflammation and hyperresponsiveness" <i>J Immunol</i> , 2000, 164:6583-6592.	
	R32	MINAGAWA, K. <i>et al.</i> "Direct observation of the biphasic conformational change of DNA induced by cationic polymers" <i>FEBS Lett.</i> , 1991, 295:67-69.	
	R33	MINSHALL, E. <i>et al.</i> "Eosinophil-associated TGF- $\beta_1$ mRNA expression and airways fibrosis in bronchial asthma" <i>Am J Respir Cell Mol Biol</i> , 1997, 17:326-333.	
	R34	MIYAZAKI, S. <i>et al.</i> "Chitosan and sodium alginate based bioadhesive tablets for intraoral drug delivery" <i>Biol. Pharm. Bull.</i> , 1994, 17(5):745-747.	
	R35	MOSMANN, T.R. <i>et al.</i> "TH1 and TH2 cells: Different patterns of lymphokine secretion lead to different functional properties" <i>Ann Rev Immunol</i> , 1989, 7:145-173.	
	R36	MURRAY, H.W. "Current and future clinical applications of interferon-gamma in host antimicrobial defense" <i>Intensive Care Med</i> , 1996, 22(Suppl 4):S456-S461.	
	R37	MUZZARELLI, R. <i>et al.</i> "Reconstruction of parodontal tissue with chitosan" <i>Biomaterials</i> , 1989, 10:598-603.	
	R38	NISHIMURA, K. <i>et al.</i> "Immunological activity of chitin and its derivatives" <i>Vaccine</i> , 1984, 2:93-99.	
	R39	OTTERLEI, M. <i>et al.</i> "Characterization of binding and TNF- $\alpha$ -inducing ability of chitosans on monocytes: the involvement of CD14" <i>Vaccine</i> , 1994, 12:825-832.	

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (use as many sheets as necessary)			<b>Complete if Known</b>		
			Application Number	10/544,145	
			Filing Date	August 2, 2005	
			First Named Inventor	Shyam S. Mohapatra	
			Group Art Unit	1632	
			Examiner Name		
			Attorney Docket Number	USF-T192XC1	
Sheet	6	of	7		

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article, (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	R40	PAPINEAU, A.M. <i>et al.</i> "Antimicrobial effect of water-soluble chitosans with high hydrostatic pressure" <i>Food Biotechnol</i> , 1991, 5:45-57.	
	R41	PIERKES, M. <i>et al.</i> "Decreased release of histamine and sulfidoleukotrienes by human peripheral blood leukocytes after wasp venom immunotherapy is partially due to induction of IL-10 and IFN- $\gamma$ production of T cells" <i>J Allergy Clin Immunol</i> , 1999, 103:326-332.	
	R42	REMY, J-S. <i>et al.</i> "Gene transfer with lipospermines and polyethylenimines" <i>Adv. Drug Deliv. Rev.</i> , 1998, 30:85-95.	
	R43	RICHARDSON, S.C. <i>et al.</i> "Potential of low molecular mass chitosan as a DNA delivery system: biocompatibility, body distribution and ability to complex and protect DNA" <i>Int. J. Pharm.</i> , 1999, 178:231-243.	
	R44	SINGLA, A.K. and CHAWLA, M. "Chitosan: some pharmaceutical and biological aspects—an update" <i>J Pharm Pharmacol</i> , 2001, 53:1047-1067.	
	R45	TANG, C. <i>et al.</i> "Th type 1-stimulating activity of lung macrophages inhibits Th2-mediated allergic airway inflammation by an IFN- $\gamma$ -dependent mechanism" <i>J Immunol.</i> , 2001, 166:1471-1481.	
	R46	THANOOU, M. <i>et al.</i> "Quaternized chitosan oligomers as novel gene delivery vectors in epithelial cell lines" <i>Biomaterials</i> , 2002, 23:153-159.	
	R47	THIVIERGE, M. <i>et al.</i> "IL-13 and IL-4 up-regulate cysteinyl leukotriene 1 receptor expression in human monocytes and macrophages" <i>J Immunol</i> , 2001, 167:2855-2860.	
	R48	UMETSU, D.T. <i>et al.</i> "T <sub>H1</sub> and T <sub>H2</sub> CD4 <sup>+</sup> cells in human allergic diseases" <i>J Allergy Clin Immunol</i> , 1997, 100:1-6.	
	R49	VAN DER LUBBEN, I.M. <i>et al.</i> "Chitosan and its derivatives in mucosal drug and vaccine delivery" <i>Eur J Pharm Sci</i> , 2001, 14:201-207.	
	R50	WROBEL, I. and COLLINS, D. "Fusion of cationic liposomes with mammalian cells occurs after endocytosis" <i>Biochem. Biophys. Acta</i> , 1995, 1235:296-304.	
	R51	YOSHIDA, M. <i>et al.</i> "Effect of interferon- $\gamma$ on allergic airway responses in interferon- $\gamma$ -deficient mice" <i>Am J Respir Crit Care Med</i> , 2002, 166:451-456.	
	R 52	GILL, D.R. <i>et al.</i> "The development of gene therapy for diseases of the lung" <i>Cell. Mol. Life Sci.</i> , 2004, 61:355-368.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	10/544,145
				Filing Date	August 2, 2005
				First Named Inventor	Shyam S. Mohapatra
				Group Art Unit	1632
				Examiner Name	
				Attorney Docket Number	USF-T192XC1
Sheet	7	of	7		

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article, (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	R53	PERRICONE, M.A. <i>et al.</i> "Aerosol and lobar administration of a recombinant adenovirus to individuals with cystic fibrosis. II. Transfection efficiency in airway epithelium" <i>Human Gene Therapy</i> , 2001, 12:1383-1394.	
	R54	"Gene" from The American Heritage Dictionary of the English Language, 4 <sup>th</sup> Ed. (online), 2000 (retrieved on 2006-06-15). Retrieved from the Internet: <URL: <a href="http://dictionary.reference.com/browse/gene">http://dictionary.reference.com/browse/gene</a> >.	
	R55	"Timolol Maleate" from RxList The Internet Drug Index (online), 2006 (retrieved on 2006-06-15). Retrieved from the Internet: <URL: <a href="http://www.rxlist.com/cgi/generic3/timololgfs_wcp.htm">http://www.rxlist.com/cgi/generic3/timololgfs_wcp.htm</a> >.	
	R56	"Respiratory tract" from Wikipedia (online), 2006 (retrieved on 2006-06-15). Retrieved from the Internet: <URL: <a href="http://en.wikipedia.org/wiki/Respiratory_tract">http://en.wikipedia.org/wiki/Respiratory_tract</a> >.	
	R57	RENER, X. <i>et al.</i> "Construction and identification of a recombinant adenovirus which expresses human interferon- $\gamma$ " <i>Chinese J. Biotech.</i> , 1997, 13:1-8.	
	R58	FLOTTE, T. and LAUBE, B. "Gene therapy in cystic fibrosis" <i>Chest</i> , 2001, 120:124S-131S.	
	R		
	R		
	R		
	R		
	R		
	R		
	R		

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.